RÉSUMÉ

Journal, Book, and Refereed RAND Publications

"Better Designs for High-Dimensional Explorations of Distillations," Tom Lucas, Susan Sanchez, Lloyd Brown, William Vinyard, to appear in Maneuver Warfare Science, 2002, Marine Corps Combat Development Command, Defense Automated Printing Service.

"Agent-based Simulations: Simple Models, Complex Analyses." Sanchez, S. M. and T. Lucas, Invited paper to appear in *Proceedings of the 2002 Winter Simulation Conference*, ed. J. L. Snowdon, J. Charnes, C-H Chen and E. Yucesan. Institute of Electrical and Electronic Engineers: Piscataway, NJ, 2002.

"How Damage Functions Affect Estimates of Fratricide and Collateral Damage," Tom Lucas, in revision.

"Exploring Combat Models for Non-monotonicities and Remedies," Bill Vinyard and Tom Lucas, in submission.

"Expert Advice, Hughes' Salvo Model, JWARS, and Experiments on the Value of Information," Tom Lucas and John McGunnigle, in submission.

"Fitting Lanchester Equations to the Battles of Kursk and Ardennes," Tom Lucas and Turker Turkes, in submission.

"On the Choice of Order Statistic for OS CFAR Processing With Non Homogeneous Clutter and Multiple Targets," Tom Lucas, in submission.

"Human Experiments on the Values of Information and Force Advantage," John McGunnigle, Wayne Hughes, and Tom Lucas, *PHALANX*, **33**, No. 4, December, 2000.

"The Stochastic Versus Deterministic Argument for Combat Simulations: Tales of When the Average Won't Do!" Tom Lucas, *Military Operations Research: Special Issue on Warfare Analysis and Complexity—the New Sciences*, **5**, No. 3, 2000.

"ADS for Analysis: Much Agreement, Important Differences," Tom Lucas, Bart Bennett, John Friel, and Robert Kerchner, *PHALANX*, **31**, No. 4, December, 1998.

"Comments on Pressure Matching for Hydrocarbon Reservoirs," Lionel Galway and Tom Lucas, in *Case Studies in Bayesian Statistics*, Volume III, Gatsonis, Hodges, Kass, and Singpurwalla (Eds.), Springer-Verlag, 1997.

"Advanced Distributed Simulation (ADS) for Analysis: The Reality and the Hype," Tom Lucas, Bart Bennett, John Friel, and Robert Kerchner, *PHALANX*, **30**, No. 3, September, 1997.

"Non-monotonicity: Clarifications and a New Direction," Pat Allen and Tom Lucas, *PHALANX*, **30**, No. 3, September, 1997.

"Improving the Analytic Contribution of Advanced Warfighting Experiments (AWEs)," Tom Lucas, Steve Bankes, and Pat Vye, *RAND*, DB-207-A, 1997.

"A Guide for Analysis Using Advanced Distributed Simulation (ADS)," Tom Lucas, John Friel, Robert Kerchner, and Dan Jones, *RAND*, MR-879-AF, 1997.

"How one Randomizes Matters: A Study of Randomness and Non-monotonicity in Combat Models," Tom Lucas, *PHALANX*, **30**, No. 1, March, 1997.

"Modified Capitation and Treatment Incentives for End Stage Renal Disease," Donna Farley, Grace Carter, Joel Kallich, Tom Lucas, and Karen Spritzer, *Health Care Financing Review*, **17**, No. 3, Spring, 1996.

"Credible Uses of the Distributed Interactive Simulation (DIS) System," Jim Dewar, Steve Bankes, Jim Hodges, Tom Lucas, and Pat Vye, *RAND*, MR-607-A, 1996.

"Understanding the Air Force's Capability to Use Advanced Distributed Simulation for Analysis," Robert Kerchner, John Friel, Tom Lucas, and Dan Jones, *RAND*, MR-744-AF, 1996.

"Priors and Likelihoods That Are Arbitrarily Sensitive to Outlying Observations," Tom Lucas, *Biometrika*, **81**, 2, pp. 385-389, June 1994.

"Designing a Capitation Payment Plan for Medicare End Stage Renal Disease Services," Donna Farley, Joel Kallich, Grace Carter, Tom Lucas, and Karen Spritzer, *RAND*, MR-391-HCFA, 1994.

"When is Conflict Normal?" Tom Lucas, *Journal of the American Statistical Association*, **88**, pp. 1433-1437, December 1993.

Other Publications

"Credible Uses of Combat Simulation: A Framework for Validating and Using Models," Tom Lucas, *RAND*, P-7990, 1997.

"A Study of Non-Monotonicity and Randomness in Combat Models," Tom Lucas, *RAND*, P-7997, 1997.

"Designing Experiments for the Modern Heavy Division Design," Tom Lucas, Lou Moore, and Pat Vye, *RAND*, DRR-1533-A, 1996.

"A Guide for Analysis Using Advanced Distributed Simulation (ADS)," Tom Lucas, John Friel, Robert Kerchner, and Dan Jones, *RAND*, DRR-1501-AF, 1996.

"Achieving OPTEC's Vision," Leland Joe, Jon Grossman, Tom Lucas, and Lou Moore, *RAND*, DRR-1542-A, 1996.

"Credible Analysis in Advanced Warfighting Experiments," Tom Lucas, Steve Bankes, and Pat Vye, *RAND*, DRR-1289-A-1, 1996.

"Improving the USAF's Capability to Effectively Apply Advanced Distributed Simulation for Analysis," Robert Kerchner, John Friel, and Tom Lucas, *RAND*, DRR-1111-AF, 1995.

"An Air Force Review of the Extended Air Defense Testbed," Tom Lucas, *RAND*, PM-201-AF, 1994.

"Designing a Capitation Payment Plan for Medicare ESRD Services," Donna Farley, Joel Kallich, Grace Carter, Tom Lucas, and Karen Spritzer, *RAND*, DRU-518-HCFA, 1993.

"Defense Suppression for Regional Conflicts Phase 1 Report," Jack Ellis, Greg Born, and Tom Lucas, *RAND*, DRR-510-AF, SECRET, 1993.

"High-Level Design and Systems/Segment Specification for a Mission-Level Model," Bart Bennett, Greg Born, and Tom Lucas, *RAND*, DRU-152-AF, 1993.

"A Comparative Model Assessment of SUPPRESSER and EADSIM," Greg Born, Bart Bennett, and Tom Lucas, *RAND*, PM-117-AF, 1993.

"Advanced Methods in Simulation Analysis," Tom Lucas, *RAND*, V-029, 1993.

"Robust Bayesian Inference When the Data Conflicts With the Prior," Tom Lucas, Ph. D. Dissertation, University of California at Riverside, University Microfilms International, Ann Arbor, Michigan, 1991.

"The Impact of Data Fusion on Mission Effectiveness," Tom Lucas, Ken Schwab, and Susan Feldman, *Technical Proceedings of the 1990 Joint Service Data Fusion Symposium*, Published by the Naval Air Development Center, 1990.